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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/607,772	06/30/2000	Richard Gu	TI-29215	2609

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TEXAS INSTRUMENTS INCORPORATED
P O BOX 655474, M/S 3999
DALLAS, TX 75265

EXAMINER

PERILLA, JASON M

ART UNIT	PAPER NUMBER
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2634

DATE MAILED: 08/12/2004

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/607,772

Applicant(s)

GU, RICHARD

Examiner

Jason M Perilla

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2 and 3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 2 and 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 May 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 2-3 are pending in the instant application.

Drawings

2. The drawings are objected to because the specification discloses that divider 46 of figure 3 is part of the phase locked loop 30 although it is shown to as a component of the sampler 32; see page 7, lines 15-20 of the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

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3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

4. A substitute specification excluding the claims is required pursuant to 37 CFR 1.125(a) because the specification is overly burdensome to examine due to the large number of amendments.

A substitute specification must not contain new matter. The substitute specification must be submitted with markings showing all the changes relative to the immediate prior version of the specification of record. The text of any added subject matter must be shown by underlining the added text. The text of any deleted matter must be shown by strike-through except that double brackets placed before and after the deleted characters may be used to show deletion of five or fewer consecutive characters. The text of any deleted subject matter must be shown by being placed within double brackets if strike-through cannot be easily perceived. An accompanying clean version (without markings) and a statement that the substitute specification contains no new matter must also be supplied. Numbering the paragraphs of the specification of record is not considered a change that must be shown.

Claim Objections

5. Claims 2-3 are objected to because of the following informalities (see *amendment filed May 6, 2004*):

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Regarding claim 2, the outputs of the voltage controlled oscillator are referred to as "plural" in lines 12, 14, 36, 40, and 41. However, to correctly agree with the embodiment of the invention and the drawings, the word "plural" should be replaced by –a plurality of- or –said plurality of--.

Further regarding claim 2, the indicating of whether said sampling clock signal is early or late by "comparing the received ... data signal sampled with said sampling clock to the received ... data signal [sampled] with said leading clock" is unclear (line 28). It is suggested that the data sampled by the sampling clock and the data sampled by the leading clock are given a term or value. It is unclear to compare data sampled with data sampled, and the claim would be more clearly understood if it compared a value of the data sampled by the sampling clock with a value of data sampled by the leading clock.

Further regarding claim 2, "and phase interpolator" should be replaced by –said phase interpolator— in line 44.

Further regarding claim 2, "generating a single output signal of an interpolation of two clock signals of *adjacent phases*" of line 44 is nearly indefinite because the limitation including adjacent phases does not clearly resolve which two clock signals are used in the interpolation. It is suggested by the Examiner that "generating a single output signal of an interpolation of two clock signals of adjacent phases" is replaced with language such as, "generating a single output of an interpolation of two clock signals having a least phase difference among the plurality of said clock signals".

Appropriate correction is required.

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Allowable Subject Matter

6. Indication of allowable subject matter is made with respect to claims 2 and 3.

7. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not anticipate or motivate one of ordinary skill in the art to arrive at the claimed invention through its teachings.

Conclusion

8. This application is in condition for allowance except for the following formal matters:

The objections above.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following prior art of record not relied upon above is cited to further show the state of the art with respect to phase locked loops and delay locked loops.

U.S. Pat. No. 5828250 to Konno.

U.S. Pat. No. 6035409 to Gaudet.

U.S. Pat. No. 6285726 to Gaudet.

U.S. Pat. No. 5740213 to Dreyer.

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U.S. Pat. No. 5907253 to Davis et al.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M Perilla whose telephone number is (703) 305-0374. The examiner can normally be reached on M-F 8-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Chin can be reached on (703) 305-4714. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jason M. Perilla
August 5, 2004

jmp



CHIEH M. FAN
PRIMARY EXAMINER